

**DIVISION OF AIR AND WATER QUALITY  
STATE DISCHARGE PERMIT & CERTIFICATION PROGRAM**

610 University Avenue  
Fairbanks, AK 99709-3643  
PHONE: (907) 451-2360  
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<http://www.state.ak.us/dec/>

June 5, 2000

File: 2526.45.001

Mr. Burt Bornhoff  
Facilities Manager  
ARCTEC Alaska  
9327 Jerstad Avenue  
Elmendorf AFB, Alaska 99506-3060

**Certified Mail 7099 3220 0003 7625 4225**  
**Return Receipt Requested**

Re: Renewal of ADEC Wastewater Disposal Permit No. 9225-DB012

Dear: Burt Bornhoff:

The Department of Environmental Conservation has completed its review of your request for the renewal of the above referenced wastewater disposal permit and is issuing ADEC Wastewater Disposal Permit 0025-DB012. The permit will allow the discharge of a maximum of 3,000 gallons per day of treated domestic wastewater from a wastewater treatment facility at the Cape Romanzof Long Range Radar Site, Bethel, Alaska. The activity will take place at Latitude 60° 47' N, Longitude 166° 02' W (Seward Meridian Section 33, Township 20N, Range 92W, USGS Hooper Bay (D-3)). The discharge is from an outflow line after chlorination and dechlorination chambers to land and then approximately 800 feet into Fowler (Nilumat) Creek, and then 10 miles to Igiak Bay.

Please review the conditions and stipulations in this permit and ensure they are all understood. This permit is effective upon issuance and expires **June 4, 2005**. This State of Alaska Wastewater Discharge Permit is being issued in accordance with AS 46 and 18 AAC 15.

As of February 19, 1993, the Department has begun collection of user fees for permit processing. One invoice for permit number 0025-DB012 is enclosed. Please submit the remittance copy along with your payment, to:

Alaska Department of Environmental Conservation  
Division of Air and Water Quality  
State Discharge Permit & Certification Plan Program  
410 Willoughby Avenue Suite #105  
Juneau, AK 99801-1795

*Clean Air, Clean Water*

Department regulations provide that if you disagree with this decision you may request an adjudicatory hearing in accordance with 18 AAC 15.200-910. The request should be mailed to the Commissioner, Alaska Department of Environmental Conservation, 410 Willoughby Avenue, Suite#105, Juneau, Alaska 99801-1795, by certified mail, return receipt requested. A copy of the request shall also be sent to the undersigned. Failure to submit a request within thirty days of service of this letter shall constitute a waiver of your right to administrative review of the decision. In addition, any other person who disagrees with this decision may request an adjudicatory hearing within thirty days of service of the enclosed permit. Any hearing granted will be limited to issues related to the issuance of this permit. If an adjudicatory hearing is thereafter granted, all permit conditions remain in full force and effect.

Sincerely,

**SIGNATURE ON FILE**

William D. McGee  
Program Manager  
Water Discharge Permits

cc: Tim Wingerter, ADEC/Fairbanks  
Abigail Ogbe, ADEC/Fairbanks  
David Johnson, ADEC/Soldotna  
ADF&G/Anchorage  
ADNR/Anchorage

**STATE OF ALASKA  
DEPARTMENT OF ENVIRONMENTAL CONSERVATION  
610 UNIVERSITY AVENUE  
FAIRBANKS, AK 99709-3643**

**WASTEWATER DISPOSAL PERMIT**

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**Permit 0025-DB012**

**Date: June 5, 2000**

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This Wastewater Disposal Permit is issued to ARCTEC Alaska, 9327 Jerstad Avenue, Elmendorf AFB, AK 99506-3060 for the disposal of up to 3,000 gallons per day of treated domestic wastewater from a wastewater treatment facility at the Cape Romanzof Long Range Radar Site, Bethel, Alaska. The activity will take place at Latitude 60° 47' N, Longitude 166° 02' W (Seward Meridian Section 33, Township 20N, Range 92W, USGS Hooper Bay (D-3)). The discharge is from an outflow line after chlorination and dechlorination chambers to tundra and then approximately 800 feet into Fowler (Nilumat) Creek, and then 10 miles to Igiak Bay.

This permit is subject to the conditions and stipulations contained in Appendices A, B and C, which are incorporated herein by reference.

This permit is issued under the provisions of Alaska Statute 46.03, the Alaska Administrative Code, as amended or revised, and other applicable state laws and regulations.

This permit is effective upon issuance and expires **June 4, 2005**. It may be terminated or modified in accordance with AS 46.03.120.

**SIGNATURE ON FILE**

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William D. McGee  
Program Manager  
Water Discharge Permits

## **APPENDIX A - SPECIFIC PERMIT CONDITIONS**

### **I. EFFLUENT AND MIXING ZONE LIMITATIONS**

- a. During the period beginning on the effective date of this permit and lasting through the expiration or termination date, the permittee is authorized to discharge secondary treated wastewater from a wastewater treatment facility at the Cape Romanzof Long Range Radar Site, Alaska.
- b. The treated domestic wastewater is discharged from a secondary wastewater treatment plant, onto land. The permit limits must be met at the end of the effluent line, prior to discharge onto land, with the exception of the mixing zone total chlorine and fecal coliform bacteria limitations, which must meet the specified limitations at the outer edge of the mixing zone, (mixing zone size is defined in section c. below).
- c. This discharge is assigned a mixing zone for the purpose of achieving sufficient dilution to meet the Alaska Water Quality Standards for fecal coliform bacteria. The mixing zone for this discharge is defined as the total area extending 100 meters downstream from the end of the outfall line. It shall be the responsibility of the permittee to inform this department in writing, if any area inside the mixing zone is used for contact or recreation.
- d. The discharge shall be free of any additives such as antifreeze solutions, methanol, solvents, corrosion inhibitors, garbage, toxic substances, grease or oils which produce a sheen, foam (other than trace amounts), or other contaminants.
- e. The discharge shall not cause or contribute to a violation of the Alaska Water Quality Standards (18 AAC 70).
- f. No other treated or untreated wastewater, sludge, or other materials shall be discharged to the lands or waters of the state unless otherwise approved by the department.

- g. The wastewater discharged to the lands or waters of the state shall not exceed the following limitations:

<b><u>Effluent Characteristic</u></b>	<b><u>Minimum Value</u></b>	<b><u>Thirty-Day Average</u></b>	<b><u>Seven-Day Average</u></b>	<b><u>Maximum Value</u></b>
Total Flow	N/A	2,700 gpd	N/A	3,000 gpd <sup>1</sup>
5-day Biochemical Oxygen Demand	N/A	30 mg/l <sup>2</sup>	45 mg/l	60 mg/l
Total Susp. Solids	N/A	30 mg/l	45 mg/l	60 mg/l
Total Residual Chlorine	N/A	N/A	N/A	0.1 mg/l
Fecal Coliform Bacteria	N/A	200 per 100 ml <sup>3,7</sup>	400 per 100ml	800 per 100 ml <sup>9</sup>
pH	6.5 S.U. <sup>4</sup>	N/A	N/A	8.5 S.U.

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<b><u>Mixing Zone Characteristic</u></b>	<b><u>Thirty-Day Average</u></b>	<b><u>Seven-Day Average</u></b>	<b><u>Maximum Value</u></b>
Total Chlorine (Outside MZ <sup>6</sup> )	N/A	N/A	0.002 mg/l <sup>10</sup>
Fecal Coliform Bacteria (Outside MZ)	20/100 ml FC <sup>5,8</sup>	N/A	40/100 ml <sup>9</sup>

**Footnotes:**

1. gallons per day (gpd);
2. milligrams per liter (mg/l);
3. milliliter (ml);
4. pH standard units (S.U.);
5. fecal coliform bacteria (FC);
6. mixing zone (MZ);
7. all effluent fecal coliform average results must be reported as the arithmetic mean;
8. all mixing zone fecal coliform results must be reported as the geometric mean;
9. not more than 10% of the samples taken may exceed this value;
10. the Alaska Water Quality Standards, (18 AAC 70), limit is 0.002 mg/l for total residual chlorine, but the detection limit for monitoring purposes in this permit is 0.1 mg/l.

## II. MONITORING AND REPORTING

### a. MONITORING OF PLANT EFFLUENT AND RECEIVING WATER

The permittee shall monitor the wastewater effluent and the receiving water, (at perimeter of mixing zone), in the following manner while the treated wastewater is being discharged:

<u>Effluent Characteristic</u>	<u>Minimum Frequency</u>	<u>Sample Type</u>
Total Flow	5 per Week <sup>2</sup>	Estimated or measured
5-day Biochemical Oxygen Demand	Quarterly <sup>2</sup>	Grab or composite <sup>1</sup>
Total Susp. Solids	Quarterly	Grab or composite <sup>1</sup>
Total Chlorine	Monthly <sup>2</sup>	Grab
Fecal Coliform Bacteria	Quarterly <sup>2</sup>	Grab
pH	Monthly	Grab
Dissolved Oxygen	Upon request by the department	Grab

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<u>Mixing Zone Characteristic</u>	<u>Minimum Frequency</u>	<u>Sample Type</u>
Total Chlorine (Perimeter of MZ)	Upon request by the department	Grab
Fecal Coliform Bacteria (Perimeter of MZ)	Twice yearly	Grab
pH (Perimeter of MZ)	Upon request by the department <sup>3</sup>	Grab
Dissolved Oxygen (Perimeter of MZ)	Upon request by the department	Grab

Footnotes:

- <sup>1</sup>. Composite samples must consist of at least four equal volume grab samples, two of which must be taken during periods of peak flow (7-9 a.m. and 6-8 p.m.).
- <sup>2</sup>. Week shall be the time period of Sunday through Saturday. Month shall be the time period of the calendar month. Bi-monthly or every other month shall be the time period consisting of two calendar months. Quarter shall be the time period of three months based on the calendar year beginning with January. Twice per year or bi-annual shall consist of two time periods during the calendar year, (Oct. through April and May through Sept.). Annual or yearly shall be once per calendar year.
- <sup>3</sup>. Reasonable potential to exceed these limits does not appear to exist and therefore monitoring will not normally be required, however the department may request the monitoring in the future by contacting the permittee.

b. TEST PROCEDURES

Test procedures for the analysis of pollutants shall conform to methods cited in 18 AAC 70.020(c), or as such regulations may be amended. The permittee may substitute alternative methods of monitoring or analysis upon receipt of prior written approval from the department.

c. REPRESENTATIVE SAMPLING

Samples and measurements taken as required shall be representative of the volume and nature of the monitored discharge.

d. ADDITIONAL MONITORING

If the permittee monitors any influent or effluent characteristic identified in this permit more frequently than required, the results of such monitoring shall be reported to the department in the monitoring report.

**III. REPORTING**

Monitoring results obtained during a reporting period shall be summarized and reported to the department and postmarked no later than the 14th day of the month following the completed reporting period. Reporting shall begin at the commencement of discharge. Signed copies of these, and all other reports required herein, shall be submitted to the department at the following address:

Alaska State Dept. of Environmental Conservation  
Division of Air and Water Quality  
555 Cordova Street  
Anchorage, Alaska 99501  
Telephone: (907) 269-3059  
Fax: (907) 269-3098

Knowingly making a false statement, by the permittee, the operator, or other employees, including contractors, on any such report may result in the imposition of criminal penalties as provided for under AS 46.03.790.

**IV. MANAGEMENT PRACTICES**

a. PROPER OPERATION AND MAINTENANCE

The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit.

b. **REMOVED SUBSTANCES**

Collected grit, scum, sludge, or other pollutants removed in the course of treatment or control of wastewater shall be disposed of in a state approved, permitted manner. If this facility wishes to dispose of these substances onsite, the disposal must be addressed in a separate permit.

c. **WARNING SIGNS**

At least one sign shall be posted near the discharge area. The sign shall provide the identity and telephone numbers of the discharger; shall inform the public that a mixing zone exists, that treated wastewater is being discharged and that users of the area should exercise caution.

**V. RECORDS RETENTION**

All records and information resulting from the monitoring activities required by this permit, including all records of analyses performed, and calibration and maintenance of instrumentation, and recordings from continuous monitoring instrumentation shall be retained in Alaska for observation by the department for five years. Upon request from the department, the permittee shall submit certified copies of such records.

**VI. CHANGE IN DISCHARGE**

All discharges authorized herein shall be consistent with the terms and conditions of this permit. The discharge of any pollutant or toxic material, (including oil, grease, or solvents), more frequently than, or at a concentration or limit not authorized, shall constitute noncompliance with the permit. Any anticipated facility expansions, flow increases, or process modifications which will result in new, different, or increased discharges of pollutants must be reported by submission of a new waste disposal permit application, or if such changes will not violate the effluent limitations specified in this permit, by written notice to the department at the address specified, at least thirty days before the implementation of such changes. Physical changes may also be subject to plan review by the department.

**VII. TOXIC POLLUTANTS**

If a toxic pollutant (including oil, grease, or solvents) concentration standard is established in accordance with 18 AAC 70, for a pollutant present in this discharge, and such standard is more stringent than the limitation in this permit, this permit is considered to be modified in accordance with the toxic pollutant concentration standard.



### **VIII. ACCIDENTAL DISCHARGES**

The permittee shall provide protection from accidental discharges not in compliance with the provisions of this permit. Facilities to prevent such discharges shall be maintained in good working condition at all times by the permittee.

### **IX. NONCOMPLIANCE NOTIFICATION**

- a. If, for any reason, the permittee does not comply with or will be unable to comply with any effluent limitation specified in this permit, the permittee shall report the noncompliance to the department within 24 hours, or as soon as possible of becoming aware of such conditions.
- b. A written follow-up report shall be sent to the department within seven days of the noncompliance event. The written report shall contain, but not be limited to:
  1. Times and dates on which the event occurred, and if not corrected, the anticipated time the noncompliance is expected to continue.
  2. A detailed description of the event, including quantities and types of materials involved.
  3. Details of any actual or potential impact on the receiving environment or public health.
  4. Details of actions taken or to be taken to correct the causes of the event.
  5. Details of actions taken or to be taken to correct any damage resulting from the event.
- c. It is recognized that influent quality changes, equipment malfunctions, or uncontrollable circumstances may sometimes result in effluent concentrations exceeding the permit limitations, despite the exercise of all possible care and maintenance measures and corrective measures by the permittee. The permittee may demonstrate to the department that such circumstances did exist where, despite all evasive measures, the effluent concentrations exceeded those set forth in this permit. The Commissioner shall consider such evidence in determining departmental actions. The department does not waive any of its legal rights during such consideration.

### **X. TRANSFER OF OWNERSHIP**

In the event of any change in control or ownership of facilities from which the authorized discharges emanate, the permittee shall notify the succeeding owner or controller of the existence of this permit in writing, a copy of which shall be forwarded to the Department of Environmental Conservation at the address in this permit.

## **APPENDIX B - GENERAL PERMIT CONDITIONS**

### **I. ACCESS AND INSPECTION**

The permittee shall allow the Commissioner or his representative access to the permitted facilities at reasonable times to conduct scheduled or unscheduled inspections or tests to determine compliance with this permit, state laws and regulations.

### **II. INFORMATION ACCESS**

Except for information relating to confidential processes or methods of manufacture, all records and reports submitted in accordance with the terms of this permit shall be available for public inspection at the State of Alaska Department of Environmental Conservation, 410 Willoughby Ave., Suite #105, Juneau, Alaska 99801-1795.

### **III. CIVIL AND CRIMINAL LIABILITY**

Nothing in this permit shall relieve the permittee from civil or criminal penalties for noncompliance, whether or not such noncompliance is due to factors beyond his control, including, but not limited to, accidents, equipment breakdowns, or labor disputes.

### **IV. AVAILABILITY**

The permittee shall post or maintain a copy of this permit available to the public at the disposal facility.

### **V. ADVERSE IMPACT**

The permittee shall take all necessary means to minimize any adverse impacts to the receiving waters or lands resulting from noncompliance with any limitation specified in this permit, including any additional monitoring needed to determine the nature and impact of the non-complying activity. The permittee shall cleanup and restore all areas adversely impacted by the noncompliance.

### **VI. CULTURAL OR PALEONTOLOGICAL RESOURCES**

Should cultural or paleontological resources be discovered as a result of this activity, work, which would disturb such resources, is to be stopped, and the State Historic Preservation Office, Division of Parks and Outdoor Recreation, Department of Natural Resources, is to be notified immediately (907-762-2622).

### **VII. APPLICATIONS FOR RENEWAL**

In accordance with 18 AAC 15.100(d), applications for renewal or amendment of this permit must be made no later than 30 days before the expiration date of the permit or the planned effective date of the amendment.

## **VIII. OTHER LEGAL OBLIGATIONS**

The requirements, duties, and obligations set forth in this permit are in addition to any requirements, duties, or obligations contained in any permit that the Alaska Department of Environmental Conservation or the U.S. Environmental Protection Agency has issued or may issue to the permittee. This permit does not relieve the permittee from the duty to obtain any and all necessary permits and to comply with the requirements contained in any such permit or with applicable state and federal laws and regulations. All activities conducted by the permittee pursuant to the terms of this permit and all plans implemented by the permittee pursuant to the terms of this permit shall comply with all applicable federal and state laws and regulations.

## **IX. POLLUTION PREVENTION**

In order to prevent and minimize present and future pollution, when making management decisions that effect waste generation, the permittee shall consider the following order of priority options:

- Waste source reduction.
- Recycling of waste.
- Waste treatment.
- Waste disposal.